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Osteo-Sarcomatous Tumors.

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DISEASES OF THE MOUTH—CONTINUED.

Osteo-Sarcoma.—However much (and it may be justly) this term is abused, it still manages to hold a place in surgical nomenclature. Employed indiscriminately, as it long has been, it must certainly be perplexing enough to that class of professional men, who study names and shadows rather than the substance of things; for, like the word Epulis, osteo sarcoma has been made to represent the most unlike pathological conditions and greatest diversity of features. The term is a hyphen, as is seen, and is derived from the Greek, ὀστεον, signifying bone, and σαρξ, meaning flesh; and, by those who created the terms, could only have been intended to stand as the representative of a class of tumors which were flesh-like in appearance, either fleshy tumors in or upon bony structures, or a transformation of bone into fleshy substance.

I cannot say that, to me, the term seems such an ill one; it is certainly expressive; it is no fault of the word that men will misuse it. Osteo-sarcoma cannot, from its very origin, apply to any strictly special disease; it is a noun of multitude, just as is Epulis when it is used as a noun. We speak of the human face when we would direct attention to the countenance; so we speak of the face of a landscape, the face of the moon, and the face of things generally. Now, the word face is, without doubt, a very admirable word, but still it tells nothing of the many different kinds of faces. To be special, it must always have an adjectival prefix. With such prefix we get every proper meaning for the word, and can employ it freely to our own satisfaction, and to the making of ourselves perfectly understood by others. Thus we say of one man, that he has a bright face; of another, that he has a dull face, etc. Osteo-sarcomatous tumors require equal latitude. Thus we have a fleshy-looking tumor, which is benign; and we have another, which is malignant. Both of these are sarcomatous, inasmuch as they are flesh-like; yet they are very different kinds of tumors, so far as a prognosis would be concerned.

By the term "flesh-like," I do not, however, understand that muscle-like structure was specially implied; for all descriptions, however far back I have been able to go, seem to refer rather to fibrous tissue.

Prof. Gross, in his article, from which I have before quoted, speaking of the diseases of the maxillary bones, which seem to require the operation of excision, says:—"They—the diseases—are generally described under the vague and unmeaning name of osteo-sarcoma, and constitute a group of affections, defying every attempt at correct classification. That this declaration, he says, is not a mere assumption, unsupported by facts, the writings of pathologists and surgeons abundantly testify."

Prof. Henry H. Smith, in his Surgery, page 483, thus writes on osteo-sarcoma:—"The bony and fleshy tumor, or osteo-sarcoma, is another ancient name, sometimes indiscriminately applied to a tumor analagous to spina ventosa. Both these tumors are malignant in their character, and would be better designated as enchondromata, or as cancer of bone, the growth being generally due to a deposit of carcinomatous matter in the bone, causing an expansion of both its cancellated and compact tissue. In spina ventosa, he says, the greatest development is of the cancellated structure; whilst, in osteo-sarcoma, it is rather the compact layer and the external periosteum that are involved,

the cancellated tissue being filled with a fleshy carcinomatous structure; whilst the enlarged cells are sometimes also filled with limited effusions of blood, or a lardaceous, soft, and pulpy deposit.

Mr. Fergusson says the non-malignant or benign tumors are represented by what Mr. Abernethy calls simple sarcoma. These are tumors of a solid, fleshy character throughout; or they may consist of a bag or cyst, which contains fluid, or of a combination of these two, for there may be one cyst or more in a tumor whose general character is sarcomatous; and in another case a cyst may ultimately assume the appearance of a more solid growth. See page 155.

Prof. Gross, in his work "Gross on the Bones," defines osteo-sarcoma as an alteration of the osseous tissue, in which the substance of the bone is converted into a mass more or less analagous to cancer of the soft parts.

The origin, he says, is, in most cases, referrible to hereditary predisposition or to external violence; it generally comes on with deep-seated, lancinating pain, which continues a considerable time before there is any evident tumor or swelling. The form of the tumor he describes as either smooth and circumscribed or unequal, and, as it were, tuberculated, etc. For continuation of this paper, which Prof. Gross seems, in his later works, to ignore, but which seems to me, in many respects, a multum in parvo of the subject, see his book, page 181.

Eustachius speaks of certain calcarious concretions deposited about the necks of the teeth, (tarter or saluary calculi evidently;) and Manget classes such concretions with the sarcomatous growth.

Prof. Dunglison, in his dictionary, defines osteo-sarcoma as a disease of the bony tissue, which consists in softening of its laminæ, and their transformation into a fleshy substance, analagous to that of cancer, accompanied with general symptoms of cancerous affection.

M. Paget says the name of cartilaginous tumors may be given to those which Miller, in one of the most elaborate portions of his work on Cancer, has named enchondroma. In a foot-note, Mr. Paget says another name employed for these tumors, is benign osteo-sarcoma. In a second foot-note, he says, under the vague name, osteo-sarcoma, many include together and seem to identify all growths, in which bone is mingled with softer tissue.

Miller, in his "Principles of Surgery," says:—"By the term osteo-sarcoma, is understood a tumor composed partly of bone and partly of fleshy subetance, as the name implies—the latter constituent of a simple, non-malignant kind. The formation is usually attributable to external injury, perhaps slight, and originates in the cancellous texture of the bone. The osseous part is analagous to the fibrous interlacement in tumors of the soft parts. It is, as it were, the stroma, in which the other constituent is deposited, dense and solid, centrally radicating in spicula outwards, which always diverge and interlace, leaving interstices more or less wide, in which the fleshy substance is lodged," etc. etc, See page 422 for differences, as given by this author, between osteo-sarcoma and enchondroma, and osteo cephaloma, etc.

Lebert places the whole class among the cancroid growths, and denies that the tendency to return furnishes any sufficient evidence of a cancerous origin.

Miller, in another part of his "Principles of Surgery," says he desires candidly to admit that the class is "not certainly a well-defined one." It has been doubted, he says, whether some variety of these fibro plastic growths would not be more properly classed among the malignant tumors, as they have been found prone to return, after excision, with singular obstinacy.

Spina ventosa, as remarked by Professor Smith, is freely enough confounded with the osteo-sarcomatous growths. Now, the first is a term meant to imply an empty cyst, ventosa, a word from the Arabic, signifying windy; while the latter implies a solid, or a comparatively solid, tumor. This definition differs, I am aware, from that given by Prof. Smith; but I employ the term, and recognize it only, in accordance with its literal meaning. Some one must take the initiative in so restricting these words, or otherwise nomenclature will always be confusing. If, then, spina ventosa means a sharply-defined empty cyst, or, to give another definition to the prefix spina, a cystic tumor, accompanied with pricking pains, then it cannot similate, so as not to be recognized. See concluding paragraphs of this paper.

And so I might go on through all the authors upon my shelves, each one describes the disease, but classifies it differently. A review which I made of many authors reminded me graphically of Krummacher's impressive anec-

dote of the bringing of the priests from the Babylonian war by Alexander, "Bild und Zerchen ist nicht das wesen," image and sign is not the essence. But I have quoted enough—and have chosen authors known familiarly to all my readers, to exhibit the confusion which exists in the nomenclature of maxillary tumors, and to excuse me, I trust, of any appearance of egotism in choosing my own terms, and my own way to describe these diseases. I do not know that I shall succeed better than the many others in making myself understood, but I shall at least adhere to the text, and map out these growths as they are met with in practice.

I chose then the hyphen, *osteo-sarcoma*, and I mean the term to apply to a class and not a species. I mean it to stand as the representative of any tumor in, or upon bone which is fibre like, let that tumor be benign or malignant.

Osteo-sarcomatous, or osteo-fibrous (synonyms) tumors are to be esteemed doubtful growths. Thus, I have seen two or more, alike, to the unassisted eye. Yet one has succumbed readily to treatment, while the others have bid defiance to every operative proceeding, and have gone on to the destruction of the patient. In minute structures, (pathological character) such tumors must have varied very greatly, of course.

The fibrous tumors of the jaws described by M. Paget,—see his lecture on Surgical Pathology, page 407, I class with the osteo-sarcomatous—so also the growth which he describes as myeloid. See same lecture, page 446. Of the first, he says, "as to situation and convenience, the fibrous tumors of the jaws may be found isolated and circumscribed, growing within the jaw, divorcing and expanding its walls, and capable of enucleation, but in a large number of these tumors, the periosteum, with or without the bone itself, is involved or included in the outgrowing mass. In the case of the upper jaw, either the periosteum, or the fibro-mucous membrane of the antrum or nasal walls, or both of these, may be included in such a tumor. In all cases, the tumor lies close upon the bone, and cannot be cleanly, or without damage to it, separated, except on the outer surface; commonly, indeed, bony growths extend from the involved bone into the tumor; and sometimes the greater part of the bone, is, as if broken up in the substance of the tumor.

The character of these growths M. Paget remarks, is easily recognized in the fibrous tumors of the gum and alveoli.

In my paper on the epulides, I referred to a tumor which is a fibrous outgrowth from the alveo-dental periosteum. This same class of growths spring from the lining membrane of the sinus maxillare, and enlarging, dispart the bones, bulging out as a tumor upon the face, they are osteo-sarcomatous, or perhaps it would be more correct to say, sarcomatous tumors, purely fibrous in structure, and perhaps, exclusively benign; such tumors, if early and properly removed, are not at all apt to return. I have met with these growths over and again, they always seemed to me to have association with the bone only when such association was forced, as it were, on them. Such tumors are exclusively periosteal in their immediate relationship. I have examined them over and again with the microscope, but have found them made up exclusively of simple fibrous tissue. If these tumors have not advanced too far, you will see them on taking away the outer wall of the antrum, as some foreign body which has been impacted closely within the part; they have not the slightest pathological association with the bone, if we except their periosteal pedicle or base. Indeed, such seems the tendency to exclusiveness on the part of these growths, that I have seen them where they were as large as an infant's head, the integuments of the cheek alone covering them, the bone which must have originally formed their external envelope, having completely disappeared through absorption.*

The myeloid tumors of M. Paget seem to me justly classable with the osteo-sarcomatous, inasmuch as they so closely resemble fibro-plastic structures as to lead to the inference that such portions as seem marrow-like, are rather the result of retrograde metamorphosis, or metamorphose into the medullary type of carcinoma, than of original pathological development. It was on account of their being made up of the fibro-cell that M. Lebert gave such growths the original name "fibro-plastic."

I do not, however, presume to dispute pathology with M. Paget; so far as the purpose of our present classification is concerned, I have only to do with the fleshy appearance of these tumors. Minutely, they have been made up of marrow-like substance, or fibrilla; if in general appearance they are fibrous or fleshy-like, then they belong to the class osteo-sarcoma, when found associated with bony tissue.

A myeloid, says M. Paget, like a fibrous

* These tumors are not the polype of the antrum.

tumor, may be either enclosed in a bone whose walls are expanded round it, or, more rarely it is closely set on the surface of a bone, confused with its periosteum. The sketches of fibrous tumors pictured in his "Surgical Pathology," page 105, might, he says, be repeated for myeloid tumors. M. Paget sets down these two kinds of tumors as being equally common to the jaws, both the superior and inferior. When, he says, the myeloid is enclosed in bone, the tumors usually tends to the spherical or ovoid shape, and are well defined, if not invested with distinct thin capsules; seated on bone, they are, (as exemplified by the epulic structures) much less defined, less regular in shape, and often deeply lobed. They feel like uniformly compact masses, but are in different instances, variously consistent. The most characteristic examples are firm; and (if by the name we may imply such a character as that of the muscular substance of a mammalarian heart) they may be called "fleshy." Others, he says, are softer, in several gradations to the softness of size gelatine, or to that of a section of granulations. Even the firmer are brittle, easily crushed or broken; they are not tough, nor very elastic, like the fibro-cellular, or fibrous tumors; neither are they grumous or pulpy; neither do they show a granular or fibrous structure on their cut or broken surfaces.

M. Paget describes sections of these tumors as appearing smooth, uniform, compact, shining, succulent with a yellowish, not a creamy, fluid. A peculiar appearance, he says, is given commonly to them, by the cut surface presenting blotches of dark or livid crimson, or of a brownish or a brighter blood color, or of a pale pink, or of all these tints mingled, on the grayish-white or greenish basis color. (In a foot note, M. Paget quotes from Lebert, who says the greenish yellow color that they may show depends on a peculiar sort of fat, xanthose.) The tumors, he says again, may all be pale, or have only a few points of ruddy blotching, or the cut surface may be nearly all suffused, or even the whole substance may have a dull modena, or crimson tinge, like the ruddy color of a heart, or that of the parenchyma of a spleen. M. Paget believes that many of what have been named spleen-like tumors of the jaws have been of this kind. The color they present, he says, is not due only to blood in them; more of it is appropriate to their texture, as that of the spleen is, or that of granulations; and it may be quickly and completely bleached with alcohol.

The following are the microscopic appearances which M. Paget says are peculiar to the myeloid growth, being imitated in no other morbid structures.

1. Cells of oval, lanceolate, or angular shapes, or elongated and attenuated like fibro-cells, or caudate cells, having dimly dotted contents, with single nuclei and nucleoli.

2. Free nuclei, such as may have escaped from the cells; and among these, some that appear enlarged and elliptical, or variously angular, or are elongated towards the same shapes as the lanceolate and caudate cells, and seem as if they were assuming the characters of cells.

3. The most peculiar form:—large, round, oval, or flask-shaped, or irregular cells and cell-like masses, or thin disks of clear or dimly granular substance, measuring from one-three-hundredth to one-thousandth of an inch in diameter, and containing two to ten or more oval, clear, and nucleolated nuclei.*

Corpuscles, such as these, irregularly and in diverse proportions, imbedded in a dimly granular substance, make up the mass of a myeloid tumor. They may be mingled with molecular matter; or, the mass they compose may be traversed with filaments, or with bundles of fibro-cellular tissue and blood vessels, but their essential features (and especially those of the many nucleated corpuscles) are rarely obscured.

Many varieties of aspect (as remarked by M. Paget) may thus be observed in myeloid tumors, and, beyond these, they may even be so changed, that the microscope may be essential to their diagnosis. After they partially ossify, well-formed cancellous bone being developed in them, cysts, also, filled with bloody or serous fluids, may be formed in them, occupying much of their volume, or even almost excluding the solid texture.

M. Paget says he lately amputated the leg of a woman, twenty-four years old, for what was supposed to be a cancerous tumor growing within the head of the tibia. She had pain in this part for eighteen months, and increasing swelling for ten months, and it was plain that the bone was expanded and wasted around some soft growth within it.

On section, after removal, the head of the tibia, including its articular face, appeared ex-

* These microscopic elements, as referred to in the paper on epulis, are presented on page 449 of "the Surgical Pathology."

panded into a rounded cyst or sac, about three and a half inches in diameter, the walls of which were formed by this flexible bone and periosteum, and by the articular cartilages above. Within these was little more than a few bands or columns of bone, among a disorderly collection of cysts filled with blood, or blood-colored serous fluids. The walls of most of the cysts were thin and pellucid; those of some were thicker, soft, and brownish-yellow, like the substance of some medullary cancers; a likeness to which was yet more marked in a small solid portion of tumor, which, though very firm, and looking fibrous, was pure, white and brain-like.

None, M. Paget says, who examined this disease with the naked eye alone, felt any doubt that it was an example of medullary cancer, with cysts abundantly formed in it. But, on minuter investigations, none but the elements of the myeloid tumors could be found in it; these copiously imbedded in a dimly granular substance, appeared to form the substance of the cyst-walls and of whatever solid material existed between them. The white brain-like mass apparently composed of similar elements in an advanced fatty degeneration, neither in it, nor in any other part, could I find a semblance of cancer-cell.

M. Paget fails to inform us as to a return of this tumor; it does seem to me that in the present state of our knowledge of cancer growth, it would have been a very difficult matter to have classed such a tumor with the non-malignant. It certainly was very heteroclite in character, and whatever we each one individually may feel disposed to think of such a structure, it serves to exhibit the merging of the benign into the malignant, and their relationship. A consideration of such cases as these should serve to put the practioner on his guard, preventing his being too confident in any prognosis he may give to a patient.

An epitome of the myeloid may thus be presented:

They are a class of fleshy tumors called by M. Lebert fibro-plastic, because, he says, they are made up of fibro-cells. They are called myeloid by M. Paget, because he thinks they much more resemble marrow than fibrous tissues.*

In character, according even to M. Paget, they vary from simple semi-fibrous-semi-marrow-looking structure to those so heteroclite, that they seem to merge into the medullary.

Their favorite seat seems to be about the bones, either intra or extra, being, perhaps, more common to the maxilla than the other osseous structures.

They are growths which usually occur singly.

They are most frequent in youth, and very rare after middle age.

They generally grow slowly and without pain, and generally commence without any known cause, such as injury or hereditary disposition. (According to M. Paget.)

They rarely, except in portions, become osseous; they have no proneness to ulcerate or protrude; they seem to bear even considerable injury without becoming exuberant; they may shrink or cease to grow; they are not apt to recur after complete removal, nor have they, in general, any features of malignant disease.

Since writing the above I have accidentally fallen upon a classification of the tumors of the upper jaw, made by Mr. Hancock. After alluding to various classes, he says: "in addition to these, M. Paget adds what he terms myeloid tumors of the part; but whilst the examples he quotes resemble so much, on the one hand, the fibrous, on the other the medullary tumors, their true character, whether innocent or malignant, is so very doubtful, that I should hesitate in admitting them as a distinct class."

I am pleased to quote this from Mr. Hancock; he speaks my mind. There are already quite enough subdivisions in our science without adding those which we can do very well without. Indeed, it is because I so prefer a general, tangible, rather than a hair-splitting classification, that I am so disposed to stick to the embrasive term of sarcoma. I understand pretty well what a man means when he tells me of an osteo-sarcomatous tumor; he has only further to tell me whether it was benign, disposed to malignancy, or already malignant, and I understand exactly what he means.

Fibrous tumors proper, the fibroid, and the fibro-plastic, have general features in common—that is, as they belong to the class of sarcomatous growth—but then, in a pathological sense, they have such differences, that an epitome, at least, of their history should be reviewed by us.

In some instances, fibrous tumors are seen, under the microscope, to have a concentric development; this species is slowest of growth, is most benign, and never attains any size.

* M. Paget does not call all fibro-plastic tumors myeloid—he only says a myeloid is different from the ordinary fibro-plastic of Lebert.

In another species the fibres interlace in a most complicated and irregular manner. These kinds attain the largest size, and seem striding towards the hetroclite. A third class consists of an aggregation of nodules, and is compared by Dr. Humphrey to a conglomerate gland; the tumor, he says, is made up of small masses closely compressed together, having an uneven, knotty outline.

Fibrous tumors affecting the bones (Braithwaite) are usually found upon those of a spongy nature, upon the ends of the long bones, the phalanges, pelvis, and lower jaw. I will take the liberty to here correct the author, and add jaws. I have described these tumors as associated with the alveoli, with the external periosteum, and with the antrum highmorianum, and I know that they do so exist, as I have met them often enough practically, and so has every man who has had either personal or clinical experience. So far, says this author, as I have seen, they are confined to the exterior of the bones, growing from the periosteum and creeping along the surface of the bone in such a manner as to prove almost to a certainty that they originate in some morbid condition of the periosteal fibres. The bones underneath these tumors may suffer absorption in consequence of the pressure produced, but do not seem to be affected in any other way. They appear upon the maxillary bones more frequently than upon any other parts of the skeleton. On the lower jaw they spread along the ramus, encircling it beneath and on the sides, so that the bone is almost concealed by the tumor. In some instances they form within the substance of the jaw, probably from the alveolo-dental membrane, and as they increase, the walls of the bone become spread out over them. They grow up around the teeth, and, where they project into the mouth, may be soft and fungus.*

In some instances these fibrous tumors of the jaws exhibit a semi-cartilaginous structure and now and then fibres or plates of bone are formed in various parts of them. The progress of the disease is well illustrated by a series of tumors in the jaws in the College of Surgeons, from the museum of the late Mr. Liston. These preparations serve to show how necessary it is to bear in mind the mode of growth of these periosteal fibrous tumors of the jaws, because from their disposition to creep along the surface of the bone, whether it be an endosteum or periosteum, they are liable to return after removal, unless the immediately adjacent as well as the affected parts be excised. The histories attached to the specimens teach that very large fibrous tumors, both of the upper and lower jaws, together with the bones on which, or in which, they grew, may be successfully removed.

Now, as to the degeneration of sarcomatous tumors it is, I think, a question beyond doubt, that a tendency, greater or less, to retrograde metamorphosis, belongs to the class.

I need only instance the myeloid growth of M. Paget, just considered. Certainly nothing could more closely resemble medullary cancer—in, we may say, an incipient stage. And what are we to understand by the recurring fibrous tumor if there is no carcinomatous association.

Concerning the diagnosis of the sarcomatous tumor, and the ability to follow them through their gradations, it seems most important that we should not be ignorant of the distinguishing signs that exist.

I remarked that osteo-sarcoma was not unfrequently confounded with spina-ventosa. Now the point at which these two different conditions most nearly approach each other is in the hydated and the other cysto-sarcomatous growths.

Cysto-sarcoma, as implied by the prefix, is a tumor of only semi-solidity; its interior, or stroma, being made up of cysts and fleshy substance. These cysts are original formation and not of secondary character; that is, they are not the result of molecular disentegration. They are, according to pathologists, lined sacs, having a distinct secreting membrane. Miller describes the contents of these cysts as widely differing. and which every one must have observed: "They are more or less fluid; sometimes a clear, gluey liquid; sometimes a gelatinous, pale mass of semi-solid consistence, elastic and projecting beyond the level of the cut cyst, on a section being made; sometimes solid, consisting of a fibrinous deposit, organized very imperfectly, if at all; sometimes of an atheromatous, or pappy consistence, as in many encysted tumors. Sometimes, but more rarely, a dark fluid, like printer's ink, is contained; sometimes blood is mingled with the contents, either in the solid or in the coagulated form.

The very nearest approach, however, made by cysto-sarcoma to spina-ventosa, is in that

* Here I did class them with the epulides, but it is seen that on this account their pathological character is not at all interfered with—it should never be a name—but disease and condi tions that we should study.

class, very well named by some author, (as I remember to have seen,) the "Cysto-succulent." These are sarcomatous tumors, the stroma of which is made up of very loose fibro-cellular tissue. They might well, in their contents, be likened to that of a water-melon; solid enough on section, but compressable into nothing. The fibrous contents of the stroma is, however, always a distinguishing sign. These tumors are very rare, and particularly so about the bony structures.

Müller has described a variety of these cysto-sarcomatous growths, which he calls "Cysto-sarcoma phyllodes." "The tumor," he says, "forms a large, firm mass, with a more or less uneven surface. The fibrous substance, which constitutes a greater part of it, is of a grayish-white color, extremely hard, and as firm as fibro-cartilage. Large portions of the tumor are made up entirely of this mass; but in some parts are cavities or clefts not lined with a distinct membrane, (an exception to the rule in cystic tumors.) These cavities contain but little fluid, for either these parietes, which are hard, like fibro-cartilage, and finely polished, lie in close apposition with each other, or a number of firm, irregular laminæ sprout from the mass, and from the walls of the fissures; or excrescences of foliated, or wart-like form, sprout from the bottom of the cavities, and fill up the interior. These excrescences are perfectly smooth on their surfaces, and never contain cysts or cells. The laminæ lie very irregularly, and project into the cavities and fissures like the folds of the psalterium in the interior of the third stomach of ruminant animals. Sometimes the laminæ are but small, and the warty excrescences from the cysts very large, whilst, in other instances, both are greatly developed."

Cartilaginous, or the enchondromatous tumors of Müller, might, perhaps, for all practical purposes, be classified with the sarcomatous, for while it might demand some little stretch of the imagination to conceit a cartilage into looking like a fleshy tumor, yet surgically, the species are very much alike; that is, both are reasonably benign; both are little amenable to the action of the sorbefacients, and both are better treated by the knife than in any other way.

As we understand the osteo-sarcomatous tumors proper, to be outgrowths associated with periosteal membrane, so we are led naturally to ask ourselves the cause of their formation. This I conceive to be twofold: First, as the result of local irritation; second, as the result of constitutional conditions, and still again we may combine these two, laying the predisposing cause in the one, and the exciting in the other.

Only this morning my attention was directed by Prof. Gibson, late surgeon of the University, to a case markedly illustrative of this latter condition. An old gentleman of this city, Mr. F., seventy years of age, was struck by a stone on the cheek while out riding, a month or so back. He has now growing from the site of injury a tumor, diagnosed by Prof. G. as osteo-sarcomatous. The growth of this is so rapid and so formidable, that I should incline to view it as running rapidly into the malignant. No one, I think, would incline to doubt that in this case the disease has a twofold relation.

When osteo-sarcoma takes on this rapid growth, its innocency may always be doubted; when the developement is slow and regular, and particularly if the origin can be traced to some local irritant, extirpation may be expected to result in complete cure.

When these tumors are fairly and openly benign we find no constitutional disturbance, at least outside of influences that are strictly mechanical.

Osteo-sarcomatous tumors of the sinus-maxillary should not be mistaken—as has often been the case—for polyps of the nares. It sometimes happens that these tumors, particularly the softer variety, find their way through the outlet of the antrum into the nostril, and there simulate very closely a common fibrous polypus, and such tumors have often been highly aggravated by operations influenced by such mistaken diagnosis. Again, polypi of the nostrils may find their way through the same passage into the antrum, and enlarging, represent perfectly the sarcomatous tumor of that cavity. Now, pathologically speaking, being somewhere about one and the same thing, it would be no difference where or how the growths should develop, but so far as operative proceedings is concerned, a mistake made would be quite awkward enough.

As regards changes common to the sarcomatous growth, they may be considered under the heads of softening suppuration, and malignant degeneration.

Softening, says Dr. Humphrey, appears to take place in two ways:

First, as a chronic process, affecting some circumscribed portion of the tumor, which is usually at or near the centre. The change is

observed to commence with a slight discoloration—a yellowish or dark tinge—which is followed by a loosening, or incipient disintegration of the structure; at the same time a line of demarkation is formed round the altered portion, which becomes seperated like a sequestrum from the surrounding mass. Both the detached portion and the cavity, are at first rough and thready on their opposed surfaces; the former undergoes still further disintergration and solution, becoming broken up into a number of small fragments, which float about in a dark, dirty, turbid fluid, and which may, ultimately, quite disappear.

The process of destruction may go in the adjacent portion of the tumor, enlarging the central cavity, till the whole is reduced to a fluid or a semi-fluid mass, walled in by the capsule of the tumor, which now stands in the relation of a cyst-wall to the disorganized contents.

In some cases the softening process is completed without extending the circumference; the ragged processes hanging into the interior of the cavity are removed. The latter acquires a smooth lining, and looks like a simple cyst lying in the cavity of the tumor.

A second mode in which softening takes place is more rapid and diffused, the whole, or a greater portion of the tumor being affected at once.

The change commences with the infiltration into the mass of a serous fluid, whereby its texture is loosened and its components separated; at the same time the tissue of the tumor is softened, and interstitial absorption is set up in it.

As the result of these processes combined, the tumor is soon broken up into detached fragments, and reduced to a diffluent pulp, or it may be completely liquified. These changes, Dr. Humphreys suggest, are occasioned by some altered state of nutrition analogous to inflammation; they may be induced by some accidental cause, as an injury. Nevertheless they are not necessarily attended with any constitutional disturbance at all corresponding with the extensive destruction which is in progress.

Suppuration.—This I infer, from consultation with many authors lying upon my table, to be very rare. It may commence internally, or progress from without inwards.

Cancerous Degeneration.—The general features and conditions of such degeneration has been considered in the body of this paper. It remains, however, to point out a second cancerous relation, namely, the existence of compound tumors. Dr. Leves-Barthworth relates a case where melanosis was deposited in the stroma of a fibrous tumor, and Dr. Humphreys exhibited a large fibrous tumor completely enveloped in cancer. In such cases we can only infer the fibrous tumor to have existence through a provocative local irritation, while the cancer conjoined with it is a seperate and distinct disease, the result of eucheny.

(*To be continued.*)

Suicide versus Homicide.

By S. D. Willard, M.D.
Of Albany, New York.

In a recent number of the Reporter, that of July 27, (page 377,) there is a "Report of Fifteen Cases of Suicidal Deaths by Cutting the Carotid Arteries." The article is one of no inconsiderable interest, and the reader may find the investigation of a subject somewhat similar in the "Statistics of Suicide in the City of New York," by Dr. John G. Adams, an article recently published in the transactions of the New York State Medical Society.

But the object of the present communication is to present the medical facts of a case where both carotids were found divided, and where the question of suicide or homicide is involved. The facts will be presented as they were elicited at a legal investigation, and, without offering our own opinion, we leave each one, as an adept in medical jurisprudence, to the formation and responsibility of his own.

"The subject, was a female, aged about forty; weight about ninety-six pounds; spare habit. She was found dead, in bed, cold and stiff, lying as if asleep, with eyes and mouth closed, with her left side near the left side of the bed. Bed not much disturbed. Left hand on the breast, while the elbow was partly covered with the bed-clothes; the right arm was crooked at the elbow a little, the hand away from the body from twelve to eighteen inches, with the finger partly flexed, and lay on the sheet; the bed clothes were turned down several inches further on the right than on the left side, and appeared undisturbed in this place, as well as at the foot of the bed.

The right leg lay straight, while the left was a little elevated or bent at the knee; she had on long stockings and gaiters.

The body lay on its back, a little turned to the right; the head a little more turned to the right, at the same time the chin considerably elevated or pressed backwards so as to make the wound gape very much, while the head was very much imbedded in the pillow; the razor, partly open, lay under the right fore-arm, and partly concealed by it: an extensive cut was found in the neck, severing all the soft tissues; extending nearly transversely across the neck, cutting through the cricoid cartilage, nerves, œsophagus, both carotids, pneumogastrics, veins, and all the muscles on the anterior portion of the neck, cutting through the outer periosteum of the fifth cervical vertebræ and into its osseous matter, and also through scaleni muscle of the left side, and cutting off a portion of the left transverse process; skin on right side cut forth more than tissue; tissue on left side cut more than skin.

The wound gaped about two inches, while the lower end of trachea was retracted about two inches, and thyroid cartilage was turned outwards and forwards; circumference of neck twelve inches; curved length of cut five and a half inches. Tongue was chewed laterally, and presented distinct, true, and chymosis points opposite molar teeth, and extended into its substance.

Blood flowed directly out, and ran under her back and shoulders, saturating irregularly the under sheet and other clothes for a space equal to about twenty to twenty-seven inches square. Also the back of her night-clothes and the portion of the pillow under her neck and back of the head, and extending laterally on left side of neck about three inches, and on the right about six inches, and flowed into the feather tick so as to saturate as many feathers as would fill a quart-mug. Beside this, there was a saturated spot of blood on the sheet, and laying in front on her breast between her night dress and the bed cover, the latter not soiled; also bloody finger marks on the face and the lower left hand; corner of right-hand pillow was crumpled up, and stained with bloody fingers or knuckles; across the palmer-phalanx of right hand was a stain of blood, but none on any other portion of it, none on the left hand. There was no blood on the anterior part of the body or neck below cut, nor was there any on the night-dress in front, nor on the neck or face above the cut, except the bloody finger marks above referred to.

There was blood on the edge of the razor, but none on the back, say about two-ninths of the polished surface of the razor had blood on it, and that was on the edge, while the rest was clean.

There were no jets or spirts of blood in any direction, while, from appearances, the blood simply ran outwards and forwards. The amount, of course, is at best conjectural, but it could not have been much, or there would have been more saturation of the bed and bedding.

Twenty-two hours after death, when the wound was sewed up, there was from three to six ounces of fluid blood sponged from the oozing vessels, and it had to be stuffed with cotton-bat, sewed and compressed, and bandages applied, in order to stop the bleeding.

Lungs congested and somewhat appoplected. The condition of the lungs is worthy of note.

Right Lung.—This lung weighed seventeen to eighteen ounces, and presented a specific gravity of .807, while the appoplectic portion presented a specific gravity of .922.

Left Lung.—This lung weighed fourteen ounces, and presented a specific gravity of .691.

Having fixed in the mind the position of the body, and the attending circumstances, the following inquiries are suggested:

Was this a case of suicide, or was it designed to imitate suicide for the concealment of murder? Does the position of the body, the composure of the body-garments and bed-clothes, the head pressed firmly and deeply into the pillow, and the elevation of the chin, favor the supposition of suicide? Does the comparatively bloodless condition of the hands, arms, and even the instrument itself, indicate that they had been in near contact with the spirtings of newly divided carotids? Would not jets of blood been thrown several feet, and over the anterior part of the body and bedding, by a division of the carotid arteries while in a recumbent posture? How came the bloody finger-prints on the face, and lower left-hand corner of the right pillow of the suicide who had lain down to die composedly after a fatal incision? And how came an isolated spot of blood twelve or fourteen inches in front of the body, and the sheet crumpled as if it had been pressed into the wound?

Notice the limited amount of blood-stains on the bed, they being only about twenty-seven inches square, and the exceeding small amount of blood found in the feathers, there being no stain on the nether bed.

Nor less important is the testimony that, in

twenty-four hours after death, from three to six ounces of blood had continued to flow from the wound, and that the hemorrhage was arrested only by stuffing the wound with cotton batting, sewing it up, and applying a compress and bandage. Does an animal bled to death continue to have blood ooze from the wound for twenty-four hours? Another significant fact, in the testimony, is that the weight of the lungs appears too great to be consistent with death from hemorrhage—the right lung weighing seventeen ounces, and the left one fourteen. This is more than double the weight in similar cases, dying from hemorrhage. The right lung was congested, and apoplectic in places. Is this consistent—a congested state of the lung in a subject in health, having died suddenly by hemorrhage? The chewed tongue indicates a severe convulsion or struggle, a thing not quite likely to occur in the sudden exhaustion that must follow the division of the two carotids, nor altogether consistent with composed and tranquil features, and closed eyes and mouth. The character of the incision should not escape particular notice, as being inconsistent with suicide being effected with a razor, the wound being deep on the left side, the vertebral process being shaved off, the inter-vertebral muscles cut through, while the osseous substance on the anterior part of the fifth cervical vertebræ was cut into.

Is there anything in this testimony to establish the opinion that the subject was strangled or suffocated, and the suicide imitated to conceal the homicide?

Based on the medical testimony already given, the views of an eminent medical man (Alfred S. Taylor, M.D. F. R. S., Prof. of Med. Jurisprudence in Guy's Hospital, Regents Park, London,) are submitted.

From these documents, he says, it appears to me—

1. That the wound in the throat must have been inflicted while the deceased was *lying on her back*—i. e., in the recumbent posture.

There was no blood on the anterior part of the neck below the cut, and there was no blood on the anterior part of the body, or night-dress.

Considering the blood-vessels divided by the wound in the neck, the fore-part of the person and dress, if deceased were sitting up at the time of its infliction, could not have escaped receiving a considerable amount of blood.

The description of the flow of blood being chiefly on each side of the neck, is in accordance with the view that the wound was inflicted while deceased was on her back.

The head being deeply imbedded in the pillow, is also in favor of this view, since, had deceased sat up at the time of infliction, I do not believe that, by any accidental fall, such an imbedding of the head in the pillow could have taken place; and further, it is not conceivable that the head should have been thrown back as the result of an accidental fall.

2. Taking the depth, extent, and direction of this wound in the neck, it is not such a wound as a person could inflict on himself, or herself, *while lying on the back in a recumbent posture.*

The large blood-vessels on each side of the neck were divided. Assuming that a suicide might have power, after dividing the carotids and jugulars on one side, to carry a razor through the trachea and œsophagus, as well as through the blood-vessels on the other side, I am decidedly of opinion that there would not have been the power to shave off the left transverse process of the fifth cervical vertebræ, or to penetrate the osseous structure. In the recumbent posture, such an act would require the exercise of great muscular force, at a very great disadvantage in the position of the right arm for using the required force.

Assuming that the incision was made from left to right, the fifth vertebræ must have been implicated in the incision before the weapon was carried to the right side at all; and yet it is stated that, in the right side of the neck, there was a cut in the skin one-quarter of an inch further than the tissues wounded.

This fact proves to my mind a deliberate withdrawal of the weapon, quite inconsistent with the fact that the blood-vessels, on both sides of the neck, had been divided, and the periosteum and osseous structure of the fifth cervical of vertebræ had been cut or penetrated.

3. On the hypothesis of suicide, a wound of this extent and depth must have been inflicted with tremendous force and with great rapidity. There must have been a sudden and copious loss of blood from the divided blood-vessels of the two sides of the neck.

How came the right hand to be in a position by the side of the body, only slightly bent—the weapon not grasped within it—but lying on the bed six or eight inches from the wrist? No muscular power would, in my judgment, have remained to enable the deceased to have placed her arm in this position after the inflic-

tion of such a wound in the recumbent posture; and there is no conceivable accident by which it could have assumed this position, unless the body had been interfered with before it was seen by the medical attendant.

The weapon, on the view of suicide, should have been in the grasp of the hand, considering the enormous muscular power which must have been used in an act of cutting which involved the body of one of the vertebræ; if not in the grasp, the part by which the weapon was held should have been close to the palm.

The right hand presented only on the palmar surface a light streak of blood. The left hand is not described as having any blood upon it. Had the right hand of deceased inflicted such a wound as is described, the back of the hand, as well as probably a part of the palmar surface, would have been covered with blood. The presence of a light streak only on the second row of the phalanges of the palm is inexplicable on the presumption of suicide. The weapon must have been grasped and held firmly in the right hand; hence, the palmar surface might have escaped, but the dorsal surface in my opinion *could not* escape receiving some blood from the vessels divided on the left side, and subsequently from those divided on the right side.

The spot of blood twelve or fourteen inches in length, etc., on the bed clothes, and the spots on the pillow to the right (and face) have no communication with the main source of hemorrhage. They must have been produced subsequently to the wound in the neck. There is no conceivable theory by which the deceased could have produced them, or that they could have resulted from any act on her part on the supposition of suicide.

Taking the altitude of the body, the nature of the wound and the medical circumstances in reference to the position of the stains of blood and the weapon, I am of opinion that this wound was not inflicted by deceased on herself; but that it must have been inflicted by some other person.

A case somewhat similar occurred to me some years since. The assassin in this case cut the throat of a woman while asleep. He cut off one of the cotton strings of her night-cap—this was found on the floor—the microscope showed fibres of cotton in the coagulated blood on the razor.

The head of deceased was pressed backwards on the pillow, and it would appear as if the chin had been raised or pulled upwards at the time of the act of cutting.

Medical Societies.

RHODE ISLAND MEDICAL SOCIETY.

LETTER ON SOME POINTS OF MILITARY SURGERY.

By Usher Parsons, M. D., of Providence, R. I.

[Read before the Rhode Island Medical Society, Dec. 19th, 1860.]

Dear Sir:—In reply to your inquiries as to the result of my experience in naval and military surgery, particularly as to ventilation, clothing, &c., I have to state that two or three of the points you allude to were strongly impressed upon my mind, which I will now refer to; and first, in respect to *ventilation*. In the battle of Lake Erie, on the 10th of September, 1813, nearly a hundred were wounded—sixty-one of them on board the Lawrence, twenty-three on board the Niagara, and about a dozen in the smaller vessels. There were eleven cases of compound fracture, besides simple fractures, many gun-shot wounds and extensive lacerations; and among them all several amputations were required. Those wounded on board the Lawrence were ranged on the upper deck in the spaces occupied by the cannon and gun carriages, which were removed from both sides of the deck to afford room for mattrasses. The only shelter over the wounded thus lodged was an awning that served to screen them from the sun, and tarpaulins and canvas to spread over and shelter them when it rained.

To the wounded of the Lawrence were added, *after two days*, those of the Niagara and of the small vessels. The whole number of patients, requiring a recumbent posture on the deck, was about fifty. They remained in the ship fourteen days after the action, and were then landed at Erie and lodged in a large unfinished court-house, and remained there until cured. Of the ninety-six wounded only three died, and these were cases of so severe a nature that a surgical operation was not deemed justifiable, and they were left to linger out a few days of misery. This entire success I have ever felt warranted in ascribing to the purity of the air, more than to any other cause.

Secondly, another cause of success worthy of special notice, was the *delay of severe surgical operations until the system was entirely recovered from the shock of the injury*.

Having sole charge of the wounded of the whole fleet (the other two medical officers being ill), and the wounded being passed down to me for aid faster than I could attend to them in a proper manner, I aimed only to save life during the action, by tying arteries or applying tourniquets to prevent fatal hæmorrhage, and sometimes applying splints as a temporary support to shattered limbs, and in two or three instances small portions of flesh were divided which held a dangling limb to the great an-

noyance of the patient. In this state the patients remained until the following morning, under the free use of cordials and anodynes. At sunrise, I began amputations, and in the course of the whole day and evening was able to finish all operations and dress at least once or twice, and to do justice to them all. On the following day, I visited the other vessels, and brought all the wounded on board the Lawrence, and treated them in like manner. Now, as all but the hopeless cases recovered, it was proved satisfactorily that the delay of amputations and other severe operations for one, and even two days, had no unfavorable effect upon the chances of recovery. Probably some lives were saved by it which would have been lost had the operations taken place on the day of the injury. I am, however, advancing no new doctrine in this matter, but only adding facts strikingly illustrative and confirmative of its correctness.

A third cause of success in this action, was the plentiful supply of fresh provisions and vegetables, brought to the fleet from the shores of Ohio, and a generous supply of wine and other cordials.

Fourthly, there can be no doubt that cheerful and buoyant spirits, occasioned by victory, contributed not a little to recovery.

In two other actions I saw much to confirm the foregoing opinions. In an attack on Mackinac, the following year, by Col. Croghan's small army, transported thither in our vessels, the number wounded was less than half that above detailed. Our vessels were crowded with troops, and afforded no suitable lodgings for patients. The air became foul. Diet mostly salt meat, with no fresh vegetables, and added to this was defeat in the enterprise, for we were repulsed. Consequently, the wounds acted unkindly, and some died that under more favorable circumstances might have recovered.

In a third action, opposite Black Rock, near Buffalo, nearly a hundred sailors crossed over the Niagara in a cold night, late in November, for the purpose of taking a battery by storm, preparatory to the crossing of General Smyth's army to take Upper Canada. The sailors succeeded, with the loss of six or seven officers and men killed, and thirty wounded. The distance across the river was about one mile, and the wounded were much chilled while returning in an open boat. The apartments for receiving them were very small and ill ventilated, but this was slightly remedied by keeping up a wood fire, which served to establish a current of fresh air from without. There were extensive suppurations, and some deaths of such as under favorable circumstances might have been saved.

You inquire the result of my experience in amputation for tetanus. It is decidedly against it. I have amputated twice without any benefit. The disease, in fact, is seated in the spinal cord. Actual cautery over this, with an iron brought to a white heat, is reported to have allayed the spasms in some cases, but I have seen no case of successful treatment of an established tetanus. For prevention, after battle, of traumatic tetanus, I deem it of great importance to graduate the covering or clothing of wounded patients according to the temperature of the air, hot days succeeded by cool nights having been found the most productive cause of tetanus.—*Communications, Rhode Island Med. Society*, 1861.

EDITORIAL DEPARTMENT.

PERISCOPE.

Weekly Summary of American Medical Journalism.

By O. C. Gibbs, M.D.,
Of Frewsburg, N. Y.

SPINAL MENINGITIS.

In the *American Medical Monthly* for July, Dr. A. Jacobi continues the report of his clinic for diseases of children. His remarks upon a case of spinal meningitis are interesting, as bearing on an idea quoted in a former number of our *summary*. He says, "It has long been supposed or known, that there are remedies that have a direct influence on the size of the blood-vessels; for instance—cinchona. On several others, Brown-Sequard has made very careful and accurate investigations, viz: on ergot and belladonna. He attributes to ergot the power of contracting the elastic layer of the blood-vessels, and vindicates to belladonna a similar action; so much so, that it would prove the exact contrast to opium, which is known to dilate the lumen of blood-vessels. Ergot is declared to be of excellent service in hyperæmic conditions of the spine and consecutive paralysis; whereas strychnia, which has been the routine remedy in any and all spinal diseases complicated with paralysis, is indicated in such only where there is anæmia."

In the case detailed by Dr. Jacobi, the patient had lost all control over the limbs, also the bladder, and for two months had been subject to convulsions daily, and even five or six times a day. The patient was eleven years old, and the following is the Doctor's prescription:

"℞. Infus. secal. cornut. (e ℥jss, cum. acid. sulphur. dilut. ℈j. parat.) ℥jv.; sulphat. quin., ℥ss. M. D. S.; a teaspoonful every three hours."

This was increased after a little. The con-

vulsions diminished in frequency, until after about four weeks, when they ceased entirely, and she recovered the power of her lower limbs. Improvement continued for three weeks, when the stomach and bowels became disturbed, and the ergot had to be discontinued. In about two weeks the convulsions began to return. Ergot was again commenced with, and again the convulsions ceased, but before a cure could be effected the patient was taken from the hospital.

The case illustrates, in a very marked degree, the influence of ergot over some forms of spinal disease. We confess that in these cases we may not have been sufficiently discriminating; but, in such cases as have fallen to us, strychnine, quinine, and iodide of potassium, have, one and all, answered our most sanguine expectations. We do not believe that any person can long take ergot with impunity. Quinine and strychnine can be administered almost indefinitely without fear of injury. The subject of spinal and cerebro-spinal disease is one of vast importance, and we hail with pleasure any opinions and experiences bearing upon the subject.

ECZEMA CAPITIS.

Dr. Jacobi's clinical report, in the number of the *Monthly* above referred to, contains the report of the treatment of several cases of eczema capitis. The results of treatment, it seems to us, were not as prompt and satisfactory as could be desired. In the first case reported, after two months of treatment, the patient was presented to the clinic even worse than at first.

Of these cases, and of *tinea capitis*, we have treated a goodly number of cases, with unauthorized treatment, and with such prompt and happy results that we have been induced to communicate our experience to the profession. The agent with which we would cure such cases is the *petroleum*, and we believe it to be as much a specific for these very annoying difficuities as quinine is for the ague. In the last ten years we have not known a failure. In that time we presume we have published a dozen articles upon the subject, and we do not know that we have influenced a single physician to give the agent a trial!—certain are we that no work upon *materia medica*, or upon *practice*, has ever alluded to this agent as a remedy in this disease.

We would poultice until the scabs are entirely removed, bathe afterwards every morning with alkaline solution, and apply the *petroleum* at night—covering the head with a cap. The patient will be well in two or three weeks.

Three years ago a lady visited us from a neighboring town, troubled with eczema capitis. She had been treated by an eminent physician for many months, and I think for several years. Failing in benefit, she visited a celebrated water-cure in the eastern part of the State, and from there, we believe, visited New York, and took the advice of a distinguished physician there; but all to no benefit. She was at our house on a visit, and not for advice. We gave her four ounces of petroleum and asked her to try it. A few weeks later we saw her with a scalp perfectly sound.

A few days since she consulted us again, saying the disease was just beginning to return, and she could find in none of the druggists' establishments an article that resembled that which we gave her, and she now called for a new supply. The article used was that obtained in Pittsburgh. This lady had probably spent two hundred dollars in getting a cure, when she might have been cured at any time for a dollar.

MONSEL'S SALT.

A correspondet of the *Pacific Medical and Surgical Journal*, writing from Washington, after having visited New York, says that he inquired for Monsel's salt in the last named city. The only article to be found, and bearing Dr. Squibs' label, was "fluid and black as ink, looking like sulphuric acid long kept in a corked bottle. I opened a bottle fresh from the chemist, and still doubting my eyes, touched my tongue to the stuff. If I had touched it to unadulterated sulphuric acid by mistake, the astonishment would not have been greater." . . . "I modestly intimated that *our* Monsel's salt was golden yellow, solid, dry, in scales, not acid, and fifty times as styptic as that, and a better hœmostatic beyond comparison than perchloride of iron, which is used on this side of the continent to arrest bleeding."

PROPYLAMINE.

In the Boston *Medical and Surgical Journal* for July 25th, Dr. H. T. Cummings has an article upon the progress of materia medica. Propylamine has been largely used during the last year in rheumatic and certain other affections, and Dr. Cummings here refers to a new source of supply. He says of *cod-liver oil*, "It is alluded to here, as a reliable source whence to obtain that alkaloid. As the result of an experiment in that direction, the writer took four pints of cod-liver oil, and distilled it with potash and quicksilver, obtaining, as the result of the operation, thirty-two ounces of distillate containing a large proportion of pure propylamine. A quantative experiment gave, as an approximative result, ten grains of sulphate of propylamine, which possesses all the properties of that obtained from the brine of herrings, or the ergot of rye. This was the result of an ex-

amination made upon a specimen preserved in a cork-stopped bottle, which had been distilled more than a year ago. It is fair to presume that a portion of the alkaloid must have been lost by evaporation, as the bottle had been frequently opened, and the cork was not very tight, so that the yield of the crystalized salt from a freshly distilled specimen might be expected to be considerably larger. If propylamine possesses the efficacy ascribed to it in rheumatic affections, the reputation possessed by cod-liver oil in similar affections must be due in great part to that element, which occupies in cod-liver oil the place that glycerine does in many other oils.

TREATMENT OF RATTLESNAKE BITES.

Between the time when our labors ceased in the *American Medical Monthly*, and commenced in the Reporter, a few journals escaped notice, and a *summary* of a few important papers was omitted. In the absence of more important material, we shall make reference to a few of those journals.

In the *North American Medico-Chirurgical Review*, for March, Dr. S. Weir Mitchell has an article of *forty-two* pages upon the treatment of rattlesnake bites. Dr. Mitchell has experimented largely in reference to the treatment of these bites—has kept snakes for this purpose, and experimented upon pigeons, rabbits, dogs, etc. Almost every proposed method of treatment has been tried, and generally without that good result which has been claimed for the different methods. We shall refer only to his conclusions in regard to one or two of the most important methods of treatment, and then give his treatment, as deducible from his experience.

His opinions of Prof. Brainard's treatment may be gleaned from the following extracts: "A comparison of these results and a reference to the above stated experiments, suffice to show that while iodine seemed to retard the constitutional action of the venom, it did not annul that action. I am, therefore, unable to confirm Professor Brainard's views."

We would suggest that there was one source of failure in Dr. Mitchell's experiments. He tests the antidotal powers of the iodine over the poison by first mixing and then injecting. To test Prof. Brainard's treatment, he should adopt his method. He is, however, favorably impressed with the action of iodine, and speaks even more favorably of Prof. Brainard's treatment than any other. "On the whole, therefore, the evidence is strongly in favor of the ability of iodine to diminish the local evils caused by venom, and, in so far, to lessen the general danger. If, too, a mixture of iodine and venom gives this as a result, it may be perfectly possible to modify a previous wound by the subsequent infiltration of neighboring tissues with iodine or tannic acid, and for this nothing can be more effectual than the mechanical means proposed by Dr. Brainard." He speaks thus of Bibron's antidote: "The experiments here related, and the general results of the use of Bibron's antidote are, on the whole, so discouraging as to render it probable that it is in reality not more valuable than other agents which have once enjoyed an equal reputation. While expressing this opinion, founded chiefly on my own inquiries, I cannot help feeling that it is impossible to settle the question definitively without a further and larger experience in the form of human cases of venom poisoning, which should be studied with care by the light which I have endeavored to throw upon the subject—reference being had to the number of fang-marks, the size of the snake, etc."

Of alcohol, he says, "If, then, I am correct in my views, alcohol is to be looked upon as merely a counter-active agent; in a word, as a stimulus to be employed to buoy the patient over the prostration caused by the venom poisoning." This is not necessarily an objection to the remedy, an antagonizing effect upon the system may be as happy in its effects as an antidote to the poison. It is quite immaterial to the patient, by what means his life is saved; a remedy introduced into the system may be beneficial, that will not, when mixed with the poison, act as a neutralizer of the venom. The following is Dr. Mitchell's advice in regard to treatment: "The disease caused by the venom is sometimes so prompt and terrible that it is impossible to rouse the system through the stomach, and this is doubly difficult when vomiting becomes one of the prominent symptoms of the general prostration. Under these circumstances, enemata of brandy may be used, and inhalations of hot alcohol, or even of ether resorted to, in order to re-excite the flagging powers.

When called to a patient who has been bitten by a rattlesnake, the physician should at once ligate the limb with a *broad* band, as tightly as may be needed to check the circulation, while, wherever it is possible, cups should be also used immediately over the wound. The question of immediate excision or ablation of the part will be then determined by considerations already before the reader, (local treatment.) Setting these means aside, the iodine treatment, as limiting the local disease, may be then resorted to; but if, as is usually the case, there is no instrument at hand to make possible this treatment, incisions and the actual cautery are the final resort. Meanwhile, stimulus in some shape should be given, and when the excitement thus obtained is sufficient, the finger should be laid on the pulse, and the band loosened. As the system becomes depressed, the ligature is once more to be drawn tighter, and, with continued use of stimulus, the economy prepared for another dose

of the venom, which is thus to be antagonized little by little. Finally, it will be requisite to shift the band higher up the limb, to avoid the too great constriction of the damaged member. The further management of the case, with regard to stimulus, must be left to the physician, who will remember that in most cases of severe poisoning, he has to deal finally with a blood which has lost a part or the whole of its power to coagulate. He may find in the mineral acids, tonics, as quinine, and the continued use of stimulus, the necessary means for carrying his patient through the later stages of the malady."

SEA-SICKNESS.

In the Maryland and Virginia *Medical Journal* for March, Dr. Wm. Mason Turner has an article upon the causes and treatment of sea-sickness. The doctor reviews at some length the views of Dr. Armand, of France, by whom it is stated that sea-sickness is the result of *perverted vision*, resulting in cerebral fatigue, and producing a series of sympathetic phenomena. Dr. Turner has twice crossed the Atlantic—many times St. George's channel, and "more than once steamed from one end of the Mediterranean to the other," and claims the right to speak upon this subject. He thus refers to the views of Dr. Armand:—"In refutation of Dr. Armand's proposition or conclusions concerning perverseness of vision causing sea-sickness, I have brought illustrations *au contraire:* first, in observation one, where swift passage through water in calm seas, with good winds, produced the least bad effect; and secondly, in observation two, when in a heavy gale, chopped sea, and vessel lying to, when all the emigrants were below and out of sight of every thing—in other words, where vision was not called into play at all—there was most sea-sickness. More than that—and I am indeed thankful to be able to report this particular point—there was a man aboard the Admiral who was entirely blind, having a hard cataract in one eye, and corneal opaqueness complete in the other,—a man who had not seen for twenty years—who could not tell day from night—yet that man was violently sea-sick for thirty-eight days; in fact, from the time we left the 'channel' until we made Sandy Hook. Perverted vision, with a vengeance!

"Again, how can it be possible that perverted vision could have occasioned sea-sickness in one who kept the state-room and the bed from port to port? I hold just such a case now in my memory. A lady, on the French steamer Meandre, was sea-sick from the time she left Marseilles until she landed at Alexandria, in Egypt; yet she never stirred from her state-room, which was below the saloon-deck, and where there was no light scarcely, which she avoided altogether by closing the dead-light and foregoing the use of the lamp. So much' then, for Dr. Armand's 'fatigue of the eye' and 'perverted vision,' which, to a blind man, and to a woman shut up in what might be termed a 'black hole,' is something to be thought of!"

Dr. Turner's views are thus stated:—"From careful observation, I come briefly to remark, that I attribute sea-sickness *simply and entirely to the unnatural motion of the ship*, which motion affects, by deficient circulation (chiefly) and otherwise, both brain and stomach—it matters not which first." In proof of this, he adduces the following:—"The sailor is accustomed to tread his ship's deck to the ceaseless roll of the sea. When he gets on land, he forgets this peculiar (*his* customary) mode of perambulation; he raises his foot and careens to starboard and larboard, to windward and leeward, expecting, from habit, to be met half way; but, unfortunately for his expectation, the ground is a fixture. The sailor that sets up an unnatural motion, a motion which throws his stomach topsy-turvy, and the result is the fact—notwithstanding the paradox—that he is sea-sick on land. I have often experienced this feeling myself. No one will say the vision is at fault." We would like Dr. Turner's explanation better if he had said *unnatural motion of the person*, instead of "*unnatural motion of the ship*, then his explanation of *land-sickness* would have been apt. We add Dr. Turner's remarks in regard to treatment: "So far as regards the cure for sea-sickness, I think little can be done. The different viscera must become habituated to the unnatural motions of the ship, and to the effects of inequalities of circulation thus produced. I know of nothing better than to wear a broad bandage tightly around the stomach and abdomen, for manifest reasons, and the resolve to 'tough out' the sickness by braving the weather, and endeavoring in storm or shine to keep the deck and learn to walk it. Lying down about 'midships, where the boat is more on a pivot, and, of course, more at rest, and keeping the horizontal position, will relieve sea-sickness; but so soon as the upright position is resumed, the nausea and vomiting returns. When the case gets sufficiently violent and protracted as to merit notice, I found nothing to act better than small quantities of calomel, (quarter of a grain,) placed at intervals on the tongue, and allowed to dissolve. This, preceded by a teaspoonful of the fluid extract valerian, and a mustard plaster over the stomach, (allowed to produce vesication,) never failed to be productive of good results."

CONSUMPTION, ETC.—PRESCRIPTION FOR.

In the *Baltimore Journal of Medicine*, for March, Dr. C. T. Horton gives a prescription, which he says "is for the treatment, and I hope, too,

the cure of consumption, bronchitis, or any affection of the air passages."

The following is the recipe:

℞.—"Etherial tinc. cannabis indica, half pint.
Extract liquorice, half pound,
Potassæ carbonas purus, half pound,
Warm water, one gallon. Mix.

Dose, one tablespoonful three times a day, gradually increased to two tablespoonsful."

The following is the formula for the *etherial tincture.*

℞.—"Alcoholic extract cannabis indica, two ounces,
Ætheris sulphuricum, one pint. Mix,

And you have a beautiful tincture."

The editor of the above-mentioned journal, says Dr. Horton's "position in the profession entitles his opinions to all respect and confidence." We certainly hope cures of "consumption" and "bronchitis" will follow the administration of this medicine; but, as there has in past time been many consumption cures proposed, while the disease still continues to commit its ravages, we trust we may be pardoned for just a little scepticism. As it may not be less worthless than other treatment in its influence, we shall certainly give it a trial.

ERGOT AFTER LABOR.

In the *American Medical Times*, for March 2d, Dr. George T. Elliot makes the following remark: "In all cases of labor, excepting in primaparæ, I habitually give ergot after delivery of the placenta as a prophylactic against after-pains, and metritis, a practice which I have upheld for eight years. It seems to me most reasonable, that the firmer the permanent uterine contractions, the less the risks of uterine inflammation from the diminished amount of blood permitted to circulate in the uterus; the absence of decomposing clots and discharge in the cavity of the organ, and the contracted condition of the uterine sinuses, as well through the uterine tissue as near the mucous membrane." We have been in the habit of giving ergot for the same and additional purposes, for the last six years, and were not aware that such treatment was practiced by any one else. We select a slightly different time for giving, than that chosen by Dr. Elliott. We generally give the ergot from fifteen minutes to half an hour *before the termination* of labor. The objects secured are, the after-birth comes away more readily, the flowing is far less, the dangers of post partum hemorrhage are greatly diminished, and the after-pains, by this means, are almost entirely obviated. The time for the first flow of blood, following the expulsion of the child, is, when the separation of the placenta from the uterine walls first commences. Without the aid of ergot, the uterus frequently takes a rest immediately after the child is expelled. If the placenta is now partially detached, or, if during the process of its detachment, the uterine contractions are exceedingly feeble, the hemorrhage may be quite severe. We have never seen subsequent dilatation and post-partum hemorrhage follow, in a case where the contraction was once firm under the influence of ergot. A vast amount of the after-pains and post-parturient suffering, are consequent upon the retention within the uterus of firm clots of blood, which that organ tries to throw off. Many cases of metritis are consequent upon the same retention. From the moment the presenting part escapes from the vulva, we like to see the uterus continue one firm contraction until the placenta is removed. We have certainly never adopted an expedient in practice that has given us such universal satisfaction as this, and not us alone, but our patients. We have often been surprised to see how little blood has been lost under this treatment—often not wetting through one thickness of muslin!—before, it was not unusual to see the blood drip through the bed.

It may be objected to this universal treatment, that labor is a natural process, and that, only in a few exceptional cases, *nature* is competent to *do well* all that she *undertakes*. To this we answer, show us a woman whose ancestors and herself have lived in strict compliance with the *laws and requirements of nature*, and we will show you one that can go through the trials and pains of labor, without the necessity of ergot, and without accident. But such a case is no safe basis for the treatment of those in the pains of maternity, who live such an artificial life as do most of American women.

It would be difficult to continue the systems of practice more completely antagonistical than Thomsonism and veritable Homœopathy. Each is adapted to a different order of mind, and, hence, although the two delusions succeeded each other, the adherents of the one did not transfer their faith to the other. Thomsonism impressed those who were gratified with the idea of reducing medical science, as well as theology and political economy, to principles of common sense, intelligible alike to the unlettered and the learned. That the apostle of this system was an ignorant man, was in its favor. They looked upon the medical profession as an aristocratic body, sustained by legal privileges. Moreover, the demonstrative character or the Thomsonian measures of treatment was suited to persons of this stamp. Homœopathy, on the other hand, secured believers among those who were fond of the mystical. It recommended itself by assuming a kind of transcendental character. It harmonized with certain notions of philosophy, sentiment,

and refinement. The persons attracted toward it, therefore, were not vulgar worshippers of ignorance enshrined as common sense, but the devotees of the mysterious and marvellous under the name of science. To persons thus constituted, the doctrine that medicinal remedies are potential in infinitesimal quantities, recommended itself the more that it conflicted palpably with common sense.—*Dr. Flint's Address.*

THE MEDICAL AND SURGICAL REPORTER.

S. W. BUTLER, M. D.
R. J. LEVIS, M. D. } Editors and Prop's.
L. C. Butler, M. D., Assistant Editor.

PHILADELPHIA, SATURDAY, AUGUST 24, 1861.

CLINICAL INSTRUCTION.

There is no method of instruction which affords so positive a return for the outlay of labor and time employed as that of the clinic. Nor is there any which enables the medical student to become so thoroughly acquainted with disease in all the various shapes and forms it assumes. The study of books is important; acquaintance with standard authors is necessary. But books treat only of generalities. The descriptions of disease they give are general and not particular. And the practitioner who starts in professional life with the idea that the books will always give him the true diagnosis of the disease he treats, or that the symptoms he finds in his patient will always be found written down in his favorite author, will be assuredly doomed to sad disappointment. The general principles of healthy and diseased action, the significance of certain phenomena, which characterize normal and abnormal conditions of the system, are what he needs most to study, and a thorough knowledge of these will make him most successful in his practice, if he have the judgment and skill properly to apply them. One branch of this knowledge—the former—may be learned perhaps in the books; the other branch can be studied best in the clinic.

As in the department of surgery that surgeon ranks highest who adds to his knowledge of minute anatomy a thorough application of it in the actual performance of surgical operations; so in practical medicine he is the most scientific practitioner who brings to the application of the general principles he has learned from the books, the most thorough clinical experience. If his knowledge of medicine be that obtained from the books only, he merely follows in the pathway marked out for him by others, and which to his utter chagrin and disappointment, will as often lead him astray as guide him aright. Books should be used as helps, as affording hints to guide us in practice, not as guides which we must blindly follow; as forming for us the ground-work on which we may build our own superstructure, and not as the temple itself.

In this view clinical instruction becomes a necessity, which can hardly be overrated, and the bed-side the proper place to study the phenomena of disease. Here it assumes, in a sense, a tangible shape, which we can see, handle, and follow to its lurking place. Here we may witness the triumphs of our noble science, not, in ferretting out and in expelling from the system every disease which may attack it, but in exposing to our mental gaze its insidious beginning, its progress and termination; in enabling us to determine when and where remedies should be applied, and when, as physicians, we can no longer aid nature in restoring the system to health. Here, too, we may pursue our investigations carefully, minutely, thoroughly, mark every varying symptom that may appear, and witness the operation of the remedies prescribed; and here also, by comparison and close observation, errors of diagnosis, as well as of practice, may be corrected.

Where else, save at the clinic, shall this necessary instruction be obtained? The physician in active practice may have many and excellent opportunities for investigation. The fortunes of life may bring under his observation a variety of cases of disease, and the occurrence of death may give him an occasional opportunity to verify or to prove inaccurate his diagnosis. But wearied and jaded out in body and mind, with the embarrassments that inevitably attend the practice of his profession, especially in the country, and the wearisome nights and toilsome days that are appointed to him, how can he bring to such investigation that vigor of intellect, that acuteness of discrimination, and that energy of purpose, so essentially necessary to

render it of value to himself or to his profession. It is impossible. Though he were made of materials equal in endurance to iron, still as "the continual dropping weareth away stones," his thirst for investigation will by and by be quenched in the accumulation of toils he is compelled to endure; the enthusiasm with which he entered upon his professional duties will die away in his weariness and fatigue. Thus it is that many physicians become mere routine practitioners, and find that "much study" is not only "a weariness to the flesh," but also does not convert all it touches into gold. "The cares" of the material "world" afford him but little opportunity for the investigation, or the close observation he may desire.

The daily routine of practice then is not adapted to that minuteness of investigation which is necessary to make the thorough pathologist and therapeutist. In practical life, the teachings of the clinic, may be the *corps de reserve* from which the physician may gather recruits for his energy and toil; the nursery from whence he may gather the fruit in after years. Hence the paramount importance of clinical instruction, and that, too, without the weariness and fatigue incident to the responsities of an extended practice; in the hospital, under the guidance of scientific experience and observation, where none of the conventionalities of society furnish any obstacles to a full, free and thorough investigation of all the phemomena of disease, where all his time, energy, and industry can be devoted to the one great mission of every physician to ameliorate the physical woes and sufferings of our common humanity. And this clinical study should be a prerequisite to his graduation. It should be included in the regular course of study prescribed by our Medical Colleges. To some extent such is the requirement, but it is not made a *sine qua non* of a medical degree. If it were, and strictly enforced, a class of physicians would go forth from the schools fully armed and equipped for the arduous duties of their profession, properly instructed for the great battle with physical infirmities. We should have earnest, living men in our ranks; men that will make their impress upon the world; men, who by the warm, outgushing energies of a living vitality, will stand at the head of every great and noble cause, which has for its object the physical, intellectual, or moral advancement of the race. Such men are needed to-day. Materials are abundant. Let the teachers in our medical schools bring them out.

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EDITORIAL NOTES AND COMMENTS.

Law against Abortion in California.—The law against abortion in California is exceedingly stringent. It declares that the person on whom an abortion is practiced shall be held as guilty as the abortionist. The object of this feature of the law is to relieve the physician of vexatious law suits to which he is sometimes subjected by the attempt of certain wicked females to fasten upon him criminal abortion when he has not even been applied to at all in the matter. A case of this kind is said to have occurred in San Francisco, and illustrates the necessity of the law in that State, even though the cases which may occur under it may be rare. Procuring abortion is justly regarded as a crime of great magnitude, and the laws of all the States, so far as we are informed, inflict upon the perpetrator of it a heavy penalty; and the law is right. Its penalties are none too severe, indeed hardly enough so to prevent its occasional, if not frequent violation.

Increased Rations for the Army.—Among the recent Acts of Congress was one increasing the army rations during the present war, which we take pleasure in commending as eminently appropriate and just. It provides that "twenty-two ounces of bread or flour, or one pound of hard bread may be given out, in place of the present issue; fresh beef instead of salt meat as often as the commanding officer shall require it, and one pound of potatoes per man at least three times a-week, if practicable. Tea may be be substituted for coffee upon requisition of the proper officer. There is also to be allowed in hospitals, under such regulations as the Surgeon-General of the Army, with the approval of the Secretary of War, may prescribe, such quantities of fresh or preserved fruits, milk, or butter, and of eggs, as may be necessary for the proper diet of the sick." This latter measure we regard as of special importance, as affording the necessary change in our army regulations to enable the wants of the sick to be pro-

vided for by Government as they should be, and not left dependent on the charities and sympathies of friends. The former is equally important as a preventive of that terrible scourge of the army, scurvy. In both these points, the Government is moving in the right direction, and its measures will meet the hearty approval of the medical profession. We make no arrogant claim of "influencing the passage of the recent bill" above our cotemporaries in medical journalism, still we think we may, with all due modesty, adopt the language of a cotemporary in a neighboring city, and say "that we thus have tangible evidence that our efforts as journalists, in behalf of humanity, occasionally meet with success."

"*Our Sanitary Commission.*"—Philadelphia is profoundly grateful to "*our* Sanitary Commission" for the appointment of Dr. Wilson Jewell as a member of that board. The selection is an excellent one. Dr. Jewell's experience and education in hygienic science renders him peculiarly well qualified for the position. But "*our* commission" very kindly excuse Dr. Jewell from any active participation in the duties of the board, (making the appointment one of *compliment merely*,) for which, perhaps, Philadelphia should be more profoundly grateful still, as the doctor's services upon the City Board of Health are invaluable and indispensable.

The Medical Times and Gazette mentions the death of Mrs. Brodhurst, in London, by a precisely similar accident with that which destroyed the life of the wife (not the daughter, as the *Gazette* incorrectly has it,) of the poet Longfellow. In commenting on these sad occurrences, the *Times* directs attention to the necessity for rendering the fine fabrics of which ladies' dresses are made, non-inflammable. The most delicate white cambric handkerchiefs, or fleecy gauze, or the finest lace, may, by simply soaking in a weak solution of chloride of zinc, be so protected from blaze, that, if held in the flame of a candle, they may be reduced to tinder without blazing. The dresses of dancers on the stage are protected in that way, but the importance of purchasing only fire-proof dresses is not yet sufficiently impressed upon the attention of our ladies to induce them to regard the precaution. Dr. Odling tells us that the various means for rendering textile fabrics non-inflammable were carefully investigated a short time since by two well-known chemists, Messrs. Versmann and Oppenheim. They showed that linen and cotton goods, dried, after immersion in a solution of tungstate of soda, or sulphate of ammonia, possessed the property of non-inflammability, and that those liquids produced no injurious effect upon the tissue or color of the fabric. The tungstate solution was found most applicable to laundry purposes, on account of its not interfering in any way with the process of ironing. Muslin or linen steeped in a 7 per cent. solution of sulphate of ammonia, or a 20 per cent. solution of tungstate of soda, and then dried, may be held in the flame of a candle or gas lamp without taking fire. That portion of the stuff in contact with the light becomes charred and destroyed, but it does not inflame, and, consequently, the burning state is not communicated to the rest of the material.

We think these suggestions are worthy of note.

The Times and Gazette mentions a curious case illustrating the very slight force required to cause a sharp knife to enter a tense abdomen, through a covering of thin petticoats. Mr. R. A. Westbrook, during an altercation with Mrs. Cathrey at the tea-table, threw a common dinner-knife, which was old and thin, and worn sharp both back and front, across the table, which struck her upon the abdomen, penetrating a thin dress and three petticoats, inflicting a wound which penetrated both layers of the peritoneum and bowels, severed an artery, and caused her death. Mr. Westbrook was held to bail in a charge of manslaughter.

Renunciation of Homœopathy.—Dr. John C. Peters, late editor of the *North American Journal of Homœopathy*, has renounced that system, and declares that he does "not believe or practice according to any one medical dogma or exclusive system." He says "he commenced the study of medicine under the impression and with the fervent hope that Homœopathy, in its future and rational developement, would supply all that was deficient in medicine," but never "has been a convert to the use of infinitesimal doses," "always felt absolutely degraded when making, what I conceived to be, necessary trials with them; that I was doing something foolish or wrong when giving them, and trifling with the lives of my friends and patients to de-

pend upon them in serious attacks, and with their time and comfort in milder attacks, and have been more and more successful, in strict proportion, as I gradually increased upon the very small quantities which I first used, and in proportion as I departed from a slavish adherence to one system of medicine." He says, furthermore, "careful study of the Homœopathic materia medica early convinced me that it was very visionary and unreliable. I labored long and zealously to do my share towards giving it a more practical and common sense shape." The dogma "*similia similibus curantur*," was a great stumbling block to him, and he regards it as "only an apparent and *fragmentary truth*, not a complete exhaustive law;"—"a mere fragment of the greater law of alterative antagonistic action which has been practised upon for ages." Still, he says, "the Homœopathists have discovered some new remedies, and renewed the use of many forgotten old ones, but it is not at all necessary to use them in infinitesimal doses." The defection of so prominent an advocate of that system will go far towards weakening the faith of its followers. Whether the "blow" will be fatal to it remains yet to be seen. Quackery does not die easily.

Ventilation.—We are not about to write a homily on this all-important subject, but design simply to direct the attention of such as are interested in the matter of having pure air for themselves to inhale, and have sufficient sympathy, with common humanity, to desire the hospital ward, and sick chamber also, to be supplied with a free circulation of heaven's pure atmosphere, to a new method of ventilation, proposed by Mr. Cooke, of London, England. Mr. Cooke's apparatus consists of laminæ of wire gauze, which fold up when the window is shut against the top stone, and can be let down to any extent by pulling down the upper frame of the window. By the arrangement of these laminæ, the current of air through the window is promoted, while anything like the draft of an open window is excluded. In like manner, deleterious gases, engendered in close rooms, are speedily and effectually removed. The air is thus drawn fresh from the atmosphere outside, and the impure air inside is displaced and driven out. A constant current is produced, keeping the air in motion, yet not sufficiently so to produce any ill effects. The apparatus is simple, cheap, easily adapted to houses as they exist, and said to be very efficient. For the preservation of fresh air during the night in hospital wards, and in private houses where a contaminating fever case exists, it promises to be especially valuable; and yet there is one objection to it which may not be easily overcome. The experiments of Sir Humphrey Davy, and his application of wire gauze to the miner's safety lamp, show that air must strike gauze of moderate apertures with a certain velocity, in order to pass through. If this be the mechanical fact, it might happen that, in certain conditions of the atmosphere, the apparatus might operate in the same manner as a closed window, and confine the air instead of removing it. On this point, the experiments with the apparatus have not been sufficient to determine how far it will answer in calm weather; still the principle upon which the apparatus is constructed—namely, that of drawing fresh air directly from the external atmosphere, and by filtering it through the fine openings of a gauze blind prevent an injurious draft—is one of which we highly approve, and have no doubt it will commend itself to all interested in the matter of ventilation.

Is Dentition a Disease?—Looking over a weekly report of mortality in a certain city a few days since, we noted among the "diseases" which had caused the death of sundry children "Teething." An addition to our nomenclature, thought we. A new idea broached by some wise man, perhaps. But in what author is it described? What is its etiology, its diagnosis and prognosis, its pathology? Rather, is it a disease at all? Is it not an "old woman's whim," a name which, to our shame, we have allowed ourselves to use, as a concession to that somewhat pugnacious class of community?

We have always supposed dentition or "teething" to be a normal physiological process; a process by which nature prepares the system of the infant for the change its growing wants demand; for the mastication of its food when its maternal supply is cut off. True, irregularity and derangement of the digestive organs and nervous system may and do arise in its progress. Diarrhœa and vomiting, severe and persistent, are almost invariably attendant upon it. Convulsions sometimes occur. How many of these little innocent beings are allowed to suffer for weeks under this complication of difficulties—which are the *real disease*—even until their emaciated forms, sunken eyes, and

wrinkled skin indicate that vitality is nearly exhausted, under the idea that "its only teething," "teething will have its run," "some children get teeth easy, and some hard," "must have diarrhœa and vomiting," "'twont do to stop em," "'twould strike to the head," "*its only teething.*" Physicians sometimes fall in with the notion, and thus thousands of children are no doubt consigned to an early grave every year, literally *sacrificed* because "*its only teething.*" The idea is absurd, to use no term denoting criminality, and, in our opinion, that physician is hardly fulfilling his mission of mercy to humanity, if he suffers himself to be influenced by it in his prescriptions. If a child have inflammation of the lungs, or of the brain, the physician treats them with appropriate remedies. So, also, when that condition of the stomach and digestive organs exist, which results in vomiting and diarrhœa, he should, in like manner. exercise his skill and judgment in arresting them. Relieve the tension of the gums if need be. Treat properly the derangements which actually exist, and "teething," as a "disease," will soon be known among "old women" and not among physicians or boards of health.

NEWS AND MISCELLANY.

The Attention of the Board of Health is at length awakened to the sanitary condition of our city, and their report embodies some facts which the committee consider to be a "sad comment upon the efficiency of our public system of street cleaning, as now practiced, and calling loudly for reform. Many of these streets and gutters were reeking with filth, and were among the worst nuisances, looking as if they had not seen either clear water or the brush and scraper for months." In their official visit they found "numerous cellar residences scarcely fit for the brute creation to harbor in." Measures were ordered to be immediately taken to remove these "nuisances prejudicial to public health" by "cleansing and closing up, or otherwise," by the owners themselves, or if not, by the Health Officer. A vigorous prosecution of these measures is imperatively demanded.

The number of deaths reported in New York for the week ending August 17, is 698, an increase of 113 over the week previous. Of this number 469 were children, and 392 were under two years of age.

The number of deaths in Philadelphia for the same period of time was 377, a *decrease* of 51 from the week ending August 10. Of these 261 were children, and 132 were under one year.

Appointment of Brigade Surgeons.—The following gentlemen have been appointed by the United States Government Brigade Surgeons, from the State of Massachusetts, viz:—Dr. G. H. Lyman, of the State Medical Commission; Dr. Luther V. Bell, Surgeon of the Massachusetts Eleventh; Dr. Peter Pineo, of the Ninth; Dr. Henry Bryant, of the Twentieth; and Dr. O. Martin, of the Third Battalion of Rifles.

Dr. Carrington, a medical director in the Confederate army under Gen. Garnett, in southwestern Virginia, was taken prisoner at the defeat of that officer, and is now at Beverly, Va.

Surgeons Ball, Griswold, Harris, Homiston, McLitchie, Stewart, Swalm, and Powell, are still prisoners at Richmond, Va, not having signed the parole of honor.

Military Hospital in Cincinnati.—A Military Hospital is in successful operation in Cincinnati, under the charge of Dr. W. H. Mussey, assisted by Drs. John A. Murphy and Charles L. Avery. More than 120 patients have been received and treated—only two of whom have died. Some 60 patients are at present under treatment. The hospital has been supported by the voluntary efforts of the citizens; but it is supposed that the Government will take it under its charge.

Dr. A. B. Shipman, of the medical staff of the Seventeenth Regiment New York volunteers, writes to the *Times* under date Fort Ellsworth, Va., August 5:

"With regard to the sanitary condition of our army on the Potomac, up to this time, it is extremely favorable. The summer, up to the first week in August, has been cool, and attended with seasonable showers of rain. No long or protracted droughts or rain storms have occurred to render the weather of an unfavorable influence on the army. Diarrhœa of a simple form has been the most prevalent disease. Next to this, fevers, of a simple miasmatic character, yielding readily to quinine. Colds, coughs, and mild rheumatic attacks, from exposure to wet and cold; carelessness in lying out of doors instead of a tent, as many soldiers do, will account for all this.

"The colds and coughs rarely terminate in pneumonia, nor does the rheumatism often become acute. In enlisting men on so short a notice it is not surprising that a great number of men who are totally unfit for field service should have been enlisted, and by mustering in the United States service many will get into the army totally unfit for soldiers. The medical inspector looks at their legs, groins, and the general physical condition of the volunteer. But it is not to be expected that in half an hour's time devoted to seventy men the inspection will be very complete, and many defects are overlooked. Granting that the volunteer has none of the defects that disqualify him, such as varicose veins, hernia, tuberculosis, &c., he may

have that about him that is worse than these. He may be lazy, dirty, indolent, inefficient, and morally unfit for the duties of a soldier. If the service requires him to do a certain amount of guard or picket duty he is sure to be on the sick list, and the surgeon, who is humane and sympathetic, will excuse him."

At Camp Massasoit, Readville, near Boston, is one of the schools of military instruction authorized by the State of Massachusetts. Dr. Dale, Surgeon General, lately visited the 20th regiment there, and found the medical department so well arranged that it is said he intends referring surgeons of other regiments to it as a model hospital. The regiment is under the command of Col. W. Raymond Lee; Dr. Henry Bryant, of Boston, is Surgeon, and Dr. Nathan Hayward, of Roxbury, Assistant Surgeon. The hospital is secluded, well ventilated and lighted, with comfortable couches, and the best of nursing. The health of the regiment is excellent, and this is doubtless in great part owning to the good management of the culinary department. Through the long range of kitchens, neatness and order are everywhere apparent. The principles of house-keeping are taught the soldiers, who are required every morning to air their bedding and sweep out their tents, and to strike the latter every third day.—*Boston Med. and Surg. Journal.*

Keroselene.—Dr. E. Cutter, of Woburn, relates briefly, in the New York *Medical Times*, the effects of the new anæsthetic, keroselene, in some experiments with it upon himself and several other members of the Middlesex East District Medical Society. They came under its influence immediately, he says, and also recovered from it well. In his own case, he remained under its influence half an hour, and in one trial insensibility was complete. It has also been used externally by Dr. Ingalls, in neuralgia.

Mr. Randall Mackley, Surgeon at Great Horton, near Bradford, England, has been accused of making a false certificate of the death of his house-keeper, and, on investigation, the jury of inquest returned a verdict of willful murder against him, he having, as is supposed, caused her death by procuring abortion.

MARRIED.

Jackson—Wilson.—On the 4th instant, by the Rev. J. Peters, Geo. W. Jackson, M. D., Assistant Surgeon Twenty-ninth Regiment, P. V., to Miss Margaretta Wilson, only daughter of Mrs. Catharine Wilson, all of this city.

Bryant—Damon.—In Wayland, Mass., July 26th, Dr. A. H. Bryant, of Natick, to Miss Abbie S. Damon, of Wayland.

Stille—Smith.—On the 20th inst., by the Rev. C. W. Shields, A. Owen Stille, M. D., to Maria King, daughter of William H. Smith, all of this city.

DIED.

Paddleford.—At Capon Springs, Va., on the 28th ult. of dysentery, Dr. Geo. P. Paddleford, son of Edward Paddleford, Esq., of Savannah, Ga.

To Correspondents.

B. J.—The pay of *Hospital Stewards* is twenty-two dollars a month. They have usually been appointed from among the privates. Medical students would, we suppose, be preferred, if they offered themselves for the position.

W. S.—Address Dr. R. A. Given, Clifton Hall Insane Asylum, Kellyville, Delaware county, Pennsylvania. The institution is in an elegant and healthy location, and under efficient medical direction. Retirement and comfort can be insured.

M. M.—The surgical instruments for the Army Medical Department of this State have been made by Mr. Kolbé. This fact is sufficient guarantee of their excellence.

J. E. D.—The influence of Santonin on vision has been frequently noticed, but the manner in which it acts is not understood. Green vision is most frequently produced, but we have in several instances known red and yellow vision to follow its administration. It colors the urine a bright yellow. No toxicological properties are ascribed to it.

B. W.—The price of McLeod's work on Military Surgery is $3,25; Bauden's, $1,00; Guthrie's, $4,65; Hennen's, $5,00; Gross's, 50 cents; Tripler and Blackman's, $1,00; Hamilton's $2,00.

Dr. D. M., Philada.—The examinations at Washington are for the regular army; those at Harrisburg are for the Volunteer Regiments. Some States have what is called a Medical Board, This State has a Medical Department, of which Dr. Henry H. Smith, of this city, is Surgeon General.

☞ In looking over our stock of Reporter's on hand, we find a surplus of some numbers, of which some of our collaborators may desire to possess the copies containing their communications. Any such who will send us their address, enclosing one dollar, shall be supplied with such number of copies as will satisfy them. First sent first served. tf.

Communications Received.

Connecticut—Dr H. E. Cook, with encl.; Dr. H. Burritt, Drs. N. M. Tribou, S. E. Maynard, each with encl. *Illinois*—Dr. A. S. Barr, with encl. *Iowa*—Dr. G. M. Staples. *Maryland*—J. W. P. Bates. *Massachusetts*—Per J. G. White: Drs. W. R. Newill, John Flint, C. S. Street, C. F. Winslow, H. F. Aten, E. P. Burgis, Joel Levens, H. Gore, Daniel Choate, C. H. Quimby, J. Wallace, B. C. Perry, E. W. Sanford, O. S. Sanders, W. S. H. Hoffendale, Joseph Paine, R. S. Warren, Jarvis Levis, Fayette Jewet, A. R. C. Kitteridge, P. D. Walch, C. H. Hildrick, Isaac Smith, Joseph Garland, O. D. Albert, A. Wallace, D. D. Geyer, D. Kennedy, W. T. Campbell, S. McFarland, W. Allen, each with encl.; Dr. J. C. Dorr, Dr. Sullivan, Drs. Arial Cummings, S. M. Cate, B. F. Campbell, M. A. Fuller, each with encl.; Dr. O. H. Flagg, Dr. C. H. Spring, Dr. O. Sanders. *Michigan*—Per John Hulme: Drs. Davis Henderson, J. W. Kermott, E. Wells, Isaac Lovejoy, Wm. Lewitt, Bernhard Hesse, D. A. Post, C. F. Ashley, H. McAndrew. *New Jersey*—Drs. A. E. Budd, H. E. Grannis, Dr. J. Sheppard, with encl. *New York*—Dr. G. R. McKay, Messrs. Tilden & Co., Dr. S. D. Willard, Dr. Elsberg, Dr. O. C. Gibbs. *Ohio*—Drs. J. H. Beard, McKim and Ashley. *Pennsylvania*—Drs. John Ream, Wm. H. White, A. Lippincott, each with encl.; Dr. Ch. Walker, with encl. *Vermont*—Per H. B. Cross, Dr. L. H. Thomas, G. P. Conn, W. R. Hutchinson, J. H. Hamilton, S. T. Fuller, H. A. Parker, F. A. Cutler, each with encl. *Canada, West*—Per John Hulme: Drs. Wm. Woodruff, Andrew McKenzie, Alfred K. Dewson, each with encl.

Office Payments—Per Swaine: Dr. C. J. Smith.